

# AMERICAN VETERINARY REVIEW,

JULY, 1895.

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NOTICE.—Please address all communications regarding matter for publication, books for review, exchanges, etc., to the Editor, 139 and 141 W. 54th St., New York.

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## EDITORIAL.

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IMPORTANT NOTICE.—This is the fourth number of our 19th volume. In the preceding we have called the attention of our friends to the numerous difficulties that we had to meet when we undertook to save the REVIEW from stopping her issue. Great as those difficulties were, we nevertheless entered the field again, depending on the help of the veterinarians of America. We made promises, and we believe that we have kept them. Our issues have been what they were in the past. We have spared nothing, neither labor nor expense. Shall we continue? It is for those to whom the REVIEW has been sent to answer. We do not intend to make this journal a source of income, but we cannot keep it if it is a continuous source of loss. We look now for the subscriptions, and we trust they will be sent to us. If we are not supported, we shall stop here. *A bon entendeur, Salut.*

VETERINARY DEONTOLOGY.—We have received of late a number of letters relating to the means which ought to be employed to elevate the veterinary profession, some of them

containing numerous complaints made by veterinarians against members of their own profession. For some it is the cutting of rates of fee, for another the manœuvres used to obtain patrons, for this one the intimate familiarity which is commonly observed between veterinarians and the employees of horse owners, and what not. It is certain that all the subjects complained of deserve attention, and ought to be remedied. But how can it be done? There are so many excuses which would be presented by those who are guilty of unprofessional doings. These are found almost everywhere. We are not worse than other nations, and we are pretty certain that what is done in America, where the profession is young, is done in Europe, where it is old. And yet it is not proper. We have already alluded to this subject in various connections, and we must now, in answer to our correspondents of to-day, repeat what we have already said: ignorance of the obligations of professional conduct cannot be wiped out until intended professional men are educated as to what their duties will be when once in the profession. Good examples set by some will do good, it is true, but before these can be followed, how many temptations to do wrong will be offered. We do not know of any mode of remedying that state of affairs but to urge our veterinary colleges to establish a course of deontology in their curriculum as one of the important factors in their improvement of veterinary education.

**VETERINARY MEAT INSPECTION.**—In previous issues we have offered our readers letters relating to the subject of sanitary or meat inspection by veterinarians in this country, and have laid before them in one of our last numbers a long article on the subject from the pen of our chief of Bureau of Animal Industry, Dr. D. E. Salmon.

Without entering into the consideration of the letters which we have published, but always watchful of what good efforts might be made in that direction, we have read in that excellent paper, the *Breeder's Gazette*, the following article, which shows, after all, that if we are not yet perfect, we are working to attain

that degree. Such inspection as is going to be carried on in the Stock Yards at Chicago cannot but do a great deal of good and the fact that a goodly number of veterinarians are to be employed speaks certainly well for the measure :

*"It is interesting to note that the Department of Agriculture is now endeavoring to perfect the inspection service at the Chicago Yards instead of seeking ways and means to cripple it.*

*"There are to be twenty inspectors stationed at as many scale houses, and four veterinarians will patrol the Yards, and pass upon the work of the inspectors. The inspection so far by the State authorities has been chiefly aimed at animals affected with contagious or infectious diseases. The work of the Federal inspectors will be chiefly with the object of detaining all animals that from any cause or condition would be unfit for food. Dr. Melvin states that 'common sense' is to be exercised, and that if country shippers will use proper discretion in handling only animals that are fit for food they will be able to avoid trouble.*

*"Cattle, hogs and sheep will be 'held up' on account of advanced pregnancy. Cows within a month of parturition, and for ten days after, will be subject to condemnation, also sheep and hogs three weeks before and ten days after. All animals with bed sores, abscesses, bruises, etc., serious enough to affect the wholesomeness of the flesh, will be thrown out. Cholera pigs, badly bruised hogs or those with bad bunches on them may get their owners into trouble. Scabby sheep that are emaciated and in bad condition will be thrown out. 'Bob' or 'deacon' calves will be condemned. Skinny racks of cows and feeble animals of all kinds will be detained. In short, anything not fit for consumption as human food will be more rigorously condemned than heretofore. Thorough work is promised.*

*"Shippers will do well to note these facts."*

HIGHER VETERINARY EDUCATION.—Are those words of any value in the mouth of some of our colleagues, or are they merely farcical, without meanings. We have heard in our meetings partisans of two-year schools say that they believed in higher

veterinary education. We have read them defending their standing in our journals. But what must be thought of their beautiful theories when we see what is taking place in the schools where they are teachers. In the report of the commencement exercises of one of the Washington schools appeared the name of a gentleman who received his degree from that school.

This college is a two-year institution, its arrangement implies at least one year of studies within its walls. How is it then that the person above alluded to, graduated from it after an attendance of a few weeks only, having entered the school about Christmas vacation, and then graduating the following March.

Is this a two-year school curriculum? Is this the meaning of a higher education? Will this Washington school explain? No doubt that is a matter of investigation for all, and especially for the National Association.

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## ORIGINAL ARTICLES.

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### REMARKS ON SOUTHERN CATTLE FEVER.

By W. H. HARBAUGH, V. S.

(Read before the Virginia State Veterinary Medical Association, Charlottesville, Va.,  
January 3, 1895.)

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*(Continued from page 147.)*

I have perfect faith in the Bureau's discovery of the protozoal micro-organisms in the red blood corpuscles, because it thoroughly explains every phenomenon of the disease, as well as the post mortem lesions. But from whence comes the micro-organism? From the South certainly, but how does it gain access to the blood of cattle? Does the tick get it from the infected cattle, or do the cattle get it from the tick? That the

tick is not a necessary bearer of the micro-parasite is proved by the Bureau's experiments of transmitting the disease by the transference of blood direct from a Southern to a Northern cow. We are told that the disease is spread by the young ticks. The old tick drops off the Southern cow, lays its eggs, the eggs are hatched, and the young ticks crawl on susceptible cattle and cause the disease. Where do these young ticks get the protozoa? Again we are told "the young ticks, as they are hatched near the dead body of the female, may become infected from this." But this idea is negative by the fact that they produced the disease with the young ticks artificially hatched. Another strange result of its experiments is noted as follows: "The crushed ticks introduced into the blood, fail to produce any infection whatever, while ticks from the same lots when placed on the skin, produce Texas fever."

The biological part of this subject must be left to the skilled specialist in the field who, with his perfectly equipped laboratory, may in time, settle some if not all of the doubtful points. But I suggest that the proper course for us to pursue is to consider ourselves a committee of observation, and that it be the duty of each member to carefully note every particular in each case treated, including a history of the animal as detailed as it is possible to obtain, and report the same in proper form, so that the recorded observations may be compiled into a paper to be read before the association next fall or winter.

During the coming season I hope to be able to settle some of the doubtful points we meet with in practice, and with the assistance of Prof. Niles and Prof. Hoge, I see no reason why we should not conduct some profitable experiments. Surely no association is better situated to study the disease.

But little attention has been paid to the medical treatment of the disease, which to us, as practitioners, is of the greatest immediate importance. The investigators have devoted their time to the cause and nature of it.

In the winter of 1886 and 1887 I was in the vicinity of Albemarle Sound, in North Carolina, getting information about

a horse disease for the Bureau. Naturally, I conversed with a number of physicians of that section, and was informed by them of a serious and frequently fatal type of malaria in the human being, they had to contend with, called by them hemorrhagic malarial fever. I was struck with the similarity of the symptoms to those of Southern cattle fever. In fact, I know of no two diseases of man and the lower animals so much alike as these two. I wrote the particulars to a veterinarian who was an authority on Southern cattle fever, but he attached no importance to the similarity of the symptoms, considering them merely co- incidental. However, I determined to go deeper into the subject, and consequently I devoted much of my spare time to reading up the diseases. The more I read, the more I became convinced that one who learns much by reading has much to unlearn when he arrives to the naked truth. Of one thing I became convinced, however, and that was that Southern cattle fever was either a malarial affection or closely related to that class of disease.

During the discussion of this subject I will call your attention to the symptoms, post mortem lesions, history, etc., of hemorrhagic malarial fever as compared with Southern cattle fever, so that you will comprehend the grounds on which I based my opinion. You must remember that the protozoa—the micro-parasite—had not been discovered in the red blood corpuscles of cattle affected with Texas fever at the time of which I speak, and when the discovery was announced, some years later, it only confirmed me in my opinion as to the nature of the disease.

I must mention that many of the physicians who have experience with hemorrhagic malarial fever, considered it a new disease; one of them told me he treated the first case that ever appeared in that section in 1866. But another physician claimed that it was not a new disease, and to prove it, he referred to some records in a quaker meeting house in Perquimans Co., N. C., as evidence that there were cases of it in that county at least fifty years before 1866. He said that while it was called yellow

fever in these records, there could be no doubt that it was hemorrhagic malarial fever, as the history of the case gave ample evidence. It should be remarked that down there "yellow chills" is a common name for the affection even at this date.

While there I learned that the majority of the physicians with whom I conversed on the subject depended on calomel and quinine as their remedial agents, and I determined to apply the same treatment, as far as applicable, to Southern cattle fever in the future.

During the following seasons my success was not what I had expected, but still I was not entirely discouraged as I knew the mortality in the human disease often exceeded twenty-five per cent. I concluded that I was giving quinine in too small doses; consequently, I laid in a supply of quinine at wholesale prices, and gave it in wholesale doses, and my success became more marked, and now, after years of trial, I am satisfied that quinine is the proper antidote when properly administered and when given to the animal before dissolution has set in.

Although we are called to treat many hopeless cases of the disease, it by no means follows that all acute cases are hopeless. In many instances, we are not called to treat ordinary sporadic diseases till they are both helpless and hopeless.

The progress of the disease is so rapid that the case is often hopeless when the animal is discovered to be ill, but fortunately, all acute cases do not become hopeless so rapidly.

I will simply outline my course of treatment in this communication, as I will go fully into the details of it in the discussion which will follow.

I first secure a comfortable stall with desirable surroundings (I never leave an affected animal on pasture if it is to be treated). I then administer a maximum dose of calomel, and in some cases combine other purgatives with it. I then prescribe extra large doses of sulphate of quinine, every three or four hours, till there is a marked fall in the temperature, or (if the animal is where I cannot see it frequently to take the temperature) until the urine becomes markedly more natural in color. I then

continue the quinine but increase the intervals between the doses, as the temperature falls, and the urine becomes natural in color.

I allow the animal all the cold drinking water desired, and feed bran and meal slops if the animal will eat them, but no harm follows the practice of allowing all the cured food the patient will eat. Some will nibble at hay, others blade fodder, and some will refuse all food. Such patients I drench with raw eggs and fresh milk, and sometimes with oatmeal gruel.

When the temperature has been reduced to  $103^{\circ}$  F., or lower, or when the urine is about natural in color, I stop the quinine, and give a compound of arsenious acid, sulphate of iron and nux vomica twice a day, and continue it so long as the cow remains debilitated or in bad condition.

In some cases, you will have relapses, when you will have to resort to quinine again. Some cases recover rapidly and permanently, while some few cases only partially recover, linger for a month or two and die, apparently from malnutrition, even weeks after severe frosts. This latter termination is especially marked in cases that owners will persist in turning on pastures after the urgent symptoms have disappeared. Therefore, I advise that all recovered cases be kept off pasture till after cold weather has set in.

In recent years, I look for ticks as a matter of curiosity. Sometimes I find them on patients, and sometimes I fail to find them, but I make no systematic search for them.

Such is an outline of my course of treatment, which, of course, is often modified when deemed necessary.

In the case of a human being with a serious disease there are premonitory symptoms which necessitate the calling of a physician before the alarming symptoms have appeared, but in the case of a cow, the alarming symptoms have appeared, and the disease has made a terrible onslaught on the vital organs before she is discovered to be ill; then we are called, and with these facts in mind I have been comparatively satisfied with my average success.

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When you have the disease break out in a herd, one or two acute cases cause the alarm. If you will have all the cattle placed in the stable, so that you can take their temperatures, you will often discover quite a percentage of them to be affected, showing no other symptoms than an abnormal rise in the temperature. Hence the necessity of this procedure.

I will cite two instances which occurred in my practice during the past season, as examples covering many of the points referred to in the foregoing pages.

On July 16th, last, I was called to see a case below the city. This cow was one that was born and raised on Col. A.'s place in Chesterfield, before referred to. Her temperature was  $107^{\circ}$  F., and her urine dark in color. I prescribed the usual remedies and she made a good recovery in about two weeks. On August 10th, I was called to see her again and found her suffering from an ordinary attack of laryngitis, from which she recovered in a few days. On August 28th, I passed the farm and saw her grazing along the road; she was in good condition and was giving a fair quantity of milk. On October 8th and 15th, I was called to prescribe for her for an obstinate diarrhoea. At this time there were no symptoms of Southern cattle fever, her symptoms were characteristic of tuberculosis. She died some weeks later, the exact date I was not informed, and consequently I had no opportunity of holding a post-mortem examination.

When I was first called to this cow I looked her over, but found no ticks. I asked the stableman if he had seen any on her. He said that he had removed a few very large ones a few days before.

On September 19th, I was called to the farm of Mr. F., in Chesterfield County. I found three fine Jersey cows affected with Southern cattle fever. Two were down, their urine was almost black, the temperature of both was  $108^{\circ}$  F. The other was standing, urine slightly tinged with coloring matter of the blood, temperature  $104^{\circ}$  F. I discovered no ticks on them. The mild case and one of the acute cases recovered, the other

died within twenty-four hours. It was the youngest cow that had the mild case.

All of these cows were born and raised on the farm of Mr. Grant, whose letter I have read to you. They were purchased by Mr. F. and taken to his place early in the spring, and did well until attacked by this fever in the latter half of September.

There is one very important point on which I have not been able to arrive at any conclusion whatever, and that is whether or not an infected farm may in course of time become a non-infected farm.

We know that Mr. Grant's farm has ever been a non-infected farm, although his cattle have ticks on them, and I know of farms where the disease occurs year after year when new cattle are placed on them, and the question that occurs to my mind is: If all cattle are kept off such a place for a certain number of years, would that place become a safe place for cattle raised on non-infected farms, or cattle from without the so-called infected area?

At present I see no hope of success for preventive inoculation, although several experimenters thought they have reached that point.

Natural immunity is acquired by cattle born and raised on an infected farm. If I intended to embark in the raising of valuable cattle, I would begin with cattle raised on an infected farm, and would buy an infected farm, and I would introduce more cattle from infected farms to keep my supply of infection, as it were, and I would be certain that my place was an infected place by placing on its pastures yearly, one or more cheap cows from non-infected places as a test. Hence my breed of cattle would be insusceptible and healthy so far as this disease is concerned, and I would run no risk of such heavy losses as incurred by Col. A. These cattle would be safe to go to any infected farm in the South, and cattle of known immunity are needed, but of course they would carry destruction to non-infected places North or South of the line in the fever season.

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## ANTISEPTIC SURGERY.

BY H. A. SPENCER, V. S.

MR. PRESIDENT AND GENTLEMEN: For several years I have been deeply interested in trying to fathom the mystery of the most humane and expeditious method of treating surgical and accidental wounds. A number of years ago our journals fairly teemed with the successful results of antiseptic surgery, but the technique was either too poorly described, or rendered unavailing by the demands for extensive and expensive paraphernalia that I, after many crude attempts, abandoned it, with the firm conviction that it had its origin in the vagaries of some visionary theorists, and was entirely impracticable in ordinary practice; therefore, I would be content to follow the time-honored custom of our fathers, and welcome the appearance of laudable pus.

But a friendly intercourse with a number of medical gentlemen, who were firm adherents to modern surgery, finally led to numerous invitations, which were eagerly accepted, to attend surgical operations where the antiseptic and aseptic methods were employed in the most minute details; and, gentlemen, the revelation was made plain to me that my former attempts had been not anti, but, candidly, proseptic surgery.

That the study of bacteriology has been productive of some of the most startling discoveries as to the cause of disease is readily conceded by all students of medicine. Among the most brilliant results of these investigations none have been more gratifying to the progressive practitioner than the perfecting of a methodical and scientific manner of conducting surgical operations with a view to complete asepsis.

We are accustomed to hear operators who have gleaned some theoretical knowledge of bacteriology from the casual perusal of our literature, or from the lectures of their college pro-

fessors, discourse learnedly on the dangers of wound infection, and the various methods to prevent such disaster ; but where we witness their attempts we find them fully as consistent and abortive as the crude attempts that I made in the same line in my early efforts to emulate the successes of those scientists, who related their providential achievements in the columns of the journals, but forgot the importance of giving their readers a lucid description of the details that blended inseparably perfect the *Modus Operandi*.

It is patent that a surgeon who would wear the laurels of a successful operator in modern surgery should have a keen conception of the relative meaning of the terms sepsis, asepsis and antisepsis, and a fixed determination to use the knowledge in its strictest sense in his surgical practice, for the omission of a single detail, however minute, in the performance of aseptic or antiseptic operation will, in the majority of instances, be the means of introducing infectious material into the wound. It is to be also remembered that the sins of commission are frequently as fertile a productive of evil as that of omission; therefore, he must not depart from the minutiae of the rules laid down for his guidance.

Aseptic is a word derived from the Greek, and is defined as "not liable to putrefaction"; but surgically it means something more than this, as our hands, apparel, and instruments are not liable to putrefaction, or at least are only remotely so, while, unless they have been sterilized and are kept sterile, they are not aseptic, but are mediums whereby we may convey the most disastrous infections to the wound. Therefore, by aseptic we mean to bring about a condition in which there is complete absence of infectious or septic material, or in other words excluding from the seat of operation, and from our hands and those of our assistants, from our instruments, sponges, dressings, or any material we may select to use in our operations, all micro-organisms of a pathogenic nature.

And, though we may have observed with scrupulous care all the details for complete asepsis, still it is very likely that fresh

wounds may contain organisms that are either numerically too few or are non-virulent, and hence do not give rise to infection. Indeed, no method has yet been discovered by which the skin can be rendered absolutely sterile, and there are micro-organisms in cutaneous glands that the most thorough disinfecting fails to remove, and these in a suitable soil are capable of producing inflammation and suppuration; therefore, it is patent that we should be as thorough as possible, for, if these bacteria should be of a virulent character, and the patient of an anæmic nature, the tissues, fluids and cells would not exercise that germicide power they are ordinarily endowed with, and infection would undoubtedly occur. In short, if we have not had at least an elementary training in bacteriology, we should unswervingly follow the detailed instructions of those whose researches in that field of science have made them proficient tutors to guide and direct us.

To those who thoroughly understand the phenomena that produce suppuration in wounds and general septic conditions, they are not a source of wonderment. To them it is only remarkable that these conditions do not exist more frequently. Hence, I say, that no matter how sound an anatomist, nor how skilfull an operator you may be, unless you practice in detail the rules of asepsis, when it is possible—which unfortunately for us of the veterinary persuasion is not as frequent as we would wish—you will fall out of the procession of advancement that modern surgery is making.

The terms sepsis and septic, as has been indicated, includes all, or nearly all, the general or local surgical infections caused by bacterial invasion. The chemical products of bacteria are more the cause of the disorder than they are themselves; several varieties of micro-organisms when they gain entrance to the general circulation multiply, and then a general blood infection is the result, which frequently proves fatal. With or without extensive multiplication of micro-organisms in the blood the system may be overwhelmed with bacterial poisons. This condition is known as acute septicæmia. Localization of pyogenic

bacteria in the organs, especially when they have been transported by emboli, give rise to multiple abscesses, and is called pyæmia, and when both conditions coexist it is called septicpyæmia.

Under the head of local infections are grouped together all those accidents which befall wounds, suppuration, traumatic fever, hospital gangrene, wound diphtheria and erysipelas.

**Antisepsis.**—In the employment of antisepsis we use the best means that can be devised for destroying the bacteria that exist both in the wound and on the implements that shall come in contact with a wound, and here it is proper to state that the terms antiseptic and disinfectant should not be confounded. The latter relates to those agents which destroy pathogenic or putrefactive organisms and are germicides, while antiseptics only arrest putrefaction and fermentation, but do not necessarily kill the micro-organisms. A deodorizer does away with stench, but may not have either antiseptic or disinfectant properties.

While bacteriologists have shown us that infection rarely takes place from the air, they have also demonstrated that it is most frequently brought about by contact, thus we are enabled to understand the importance of preventing the introduction of bacteria on instruments or the hands of the operator and assistants.

The association of laboratory with operative clinical experience should continue, and we cannot forget advising the expediency of the surgeon and bacteriologist laboring together in a field that promises so much for the instruction of both, when the results of their investigations are brought into comparison.

But our enthusiasm for aseptic methods should not allow us to lose sight of the necessity of perfect mechanical modes of procedure. In the matter of technique, aseptic operations call for no inconsiderable preparation. First, the operating table should be sheltered and occupy a reasonably clean room, all instruments should be subjected to a thorough cleansing and be placed in boiling sterilized water, after which they should be distributed in convenient trays or shallow pans which should

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contain a sufficient amount of carbolized hot water to keep them submerged. Several gallons of sterilized water should be placed in a large fountain syringe, preferably made of metal, to admit of its sterilization. A quantity of towels and enough loose smocks or aprons for the operator and his assistants should be prepared by boiling in a solution of 1 to 1000 of bichloride of mercury and afterwards dried and subjected to a heat of 212 degrees in an oven, when they may be carefully wrapped up until needed; sponges should be made, not purchased. They may be made by taking pieces of antiseptic gauze and placing wads of antiseptic cotton in their center and tying them together, thus forming a very cheap and convenient absorbent. There should be an abundance of these and after having been subjected to heat of the oven they should be packed away in sterilized, wide-mouthed fruit jars.

A large piece of rubber or oil cloth should be sterilized to be used between the field of operation and the table. The patient should be prepared for the operation by an assistant, who should see that the parts immediately adjacent to the seat of operation is shaved and thoroughly scrubbed; first, with clean hot water, soap and brush, and then thoroughly rinsed by some antiseptic fluid from the fountain syringe, after which this part must be left untouched except with sterilized hands. The patient may now be placed upon the table and anæsthetized while the operator and his assistants are preparing their hands. This should be done in the following manner: First, a thorough scrubbing with hot water and soap, then a rinse in a carbolic solution, then in a strong solution of permanganate of potash, then in a solution of oxalic acid, and a final douche from the fountain syringe, after which they may be dried by wiping them on one of the sterilized towels.

From then on those concerned must be impressed with the fact that they are to touch absolutely nothing that is unsterilized, wiping off perspiration, blowing the nose, scratching the face or putting hands in the pockets must be strictly forbidden.

The assistants are then assigned to their individual duty

one to manage the nozzle of the fountain syringe, one to hand sponges and instruments, one to sterilize instruments that have been used and are dirty, and one to see that the sterilized towels completely surround the field of operation that the operator's hands and instruments may not come in contact with non-sterilized objects. The instruments, sponges, dressings, basin for rinsing hands, fountain syringe, etc., being now placed in convenient situations by some of the assistants, the surgeon and his assistants should be helped into their smocks and the operation may be proceeded with. And, gentlemen, if you will follow these details and finally cleanse your wound of all clots and debris, and then make your wound impervious to the air with a thoroughly antiseptic dressing you will have an antiseptic wound and it will never require but the one dressing, for it will heal without stench, swelling or suppuration, and there will never be an appreciable elevation of temperature.

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### BOVINE TUBERCULOSIS.

#### TREATING ON THE DANGER FROM COW'S MILK, AND THE LEGISLATIVE CONTROL OF BOVINE TUBERCULOSIS.

BY JOHN M. PARKER, D.V.S., Haverhill, Mass.

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In considering this question, it is well to consider whether the danger from milk, as we ordinarily use it, is as great a danger as has been represented, and further, we should consider carefully whether the methods recommended by the State Board of Cattle Commissioners will result in the complete eradication of this disease from among dairy cattle. If the milk is not so dangerous, and there is not a reasonable certainty of the success of these methods, then the State is not justified in crippling an important industry, and in squandering hundreds of thousands of dollars in work that is not called for, and that will not result in permanent good.

We should remember that we are not facing a sudden crisis; there has not been a sudden increase in the number of deaths from tuberculosis; on the contrary, the members of the Cattle Commission themselves admit that the mortality from phthisis in human beings is decreasing. Further, the medical profession have not requested any such radical legislation, the State Board of Health has not demanded it, and the facts in the case do not warrant it.

It is a curious condition of affairs when the Board of Cattle Commissioners press for legislation on the ground of the requirements of public health, while the State Board of Health, whose duty is supposed to be the protection of public health, stand aside as spectators.

It seems to me that the danger has been much exaggerated, and that, with ordinary precaution, the danger from bovine tuberculosis is not the great menace to the public health that, in their excitement, the Commissioners and the public have taken it to be.

In considering almost any question of importance there is always a tendency to go from one extreme to the other, and the present instance is no exception to the rule.

The infectious character of consumption was demonstrated by Villemin many years ago, but the close relationship between human and bovine tuberculosis was first proved by Robert Koch in 1882. This matter, however, did not begin to attract public attention in this country till 1887, when the subject was brought to the attention of the authorities by Dr. Winchester, of Lawrence, who was then a member of the Board. Since that time the agitation has gradually gained in strength, until the authorities have gone to the opposite extreme. There is still room for improvement in the laws relating to the contagious diseases of animals, but the Commissioners have signally failed to show the necessity for any such radical legislation as is proposed.

At the time the agitation was started there was really no check on the disease, old worn-out cows and "coughers" were butchered and sold for meat, and milk from any and every cow

was sold without let or hindrance; at that time some steps were necessary for the protection of public health, and in consequence of the demand for protection, local inspectors were appointed, whose duty it was to seize all evidently deceased animals, as well as unwholesome meat. That was a step in the right direction so far as it went.

In 1890 Koch, under pressure, made public his work on tuberculin. This resulted in a tremendous and intense excitement all over the world, and consumptives undertook journeys of hundreds of miles for the sake of getting treated with the "new cure for consumption." It was found, however, that although it cured a percentage of cases, yet in some it caused the disease to spread through the system, establishing new centers of infection in the body. For this reason its use as a curative agent was discontinued. It had been noticed by several observers, however, that when a person suffering from consumption received an injection of the lymph or tuberculin, it invariably caused a rise in temperature, and in 1891 Gutman, a Russian, took advantage of this fact and began to make experiments with it as a diagnostic agent in cattle, and as a result of the wide notoriety and intense interest its production and use aroused in medical and scientific circles, original workers began hammering and working at this subject in all possible directions. An immense amount of valuable and good work has been done, but unfortunately through newspaper notoriety a morbid interest and excitement has been aroused among the general public, and the present crusade against dairy cattle is the result.

Some of the best experimental work that has been done with milk is the work done by the Massachusetts Society for the Promotion of Agriculture at Matapan, under the direction of Dr. H. Ernst, and in looking over this work one cannot help noticing that while there is abundant evidence to show that disease *may be conveyed* by the ingestion or inoculation of milk from diseased animals, yet the danger must be very slight in actual and under natural condition.

In the work on "Infectiousness of Milk" published recently

by the Society, a number of carefully prepared tables are given, showing the results of the investigations and inoculations.

We find that the cows, from which the milk used in these experiments was taken, were picked out by physical examination alone.

The udders may not have been diseased, but yet the cows themselves were badly diseased, as shown by post-mortem examination.

In all 36 different cows were experimented with, and the bacillus of tuberculosis was found in the milk of 12 different animals.

Experiments were made by inoculating 88 guinea pigs with milk from 15 of these tuberculous cows. The milk from only six was found capable of producing the disease, and only 12 of these 88 guinea pigs became infected.

In another series of experiments, 90 rabbits were inoculated with milk from 19 different tuberculous cows. The milk from only four of the cows produced the disease, and only six of the 90 rabbits became infected.

Again, 48 rabbits were fed with milk from five tuberculous cows, and with milk known to be infected, and only two rabbits became diseased; both of these rabbits were fed on milk from the same cow (cow E), which was very badly diseased.

Twelve healthy pigs fed on milk from these same cows gave a larger proportion of cases, five out of the 12 becoming tuberculous; but it should be noticed that three of the five were fed on milk from one cow (cow E). Further, it was milk from this same cow that infected the rabbits in the last series of experiments referred to.

Twenty-one calves were also fed with milk from these cows, and eight became tuberculous. (Infectiousness of Milk. Ernst.)

Experiments in this same line have been done by many other investigators, notably by Bang of Copenhagen. He experimented with milk from 28 tuberculous cows, and in only two cases did the milk prove to be infected, yet the cows were almost all "infected with tuberculosis to a high degree."

Nocard and May both got similar results, while Hirchbirger "inoculated milk from 20 different tuberculous cows into the peritoneal cavity of guinea pigs, and found it capable of infection in 11 cases." (Journal of Comp. Path., Sept., 1890.)

These figures are valuable, and they go to show that even where the disease is well marked and the animal highly tuberculous, the danger is not so very great; for we must remember that in inoculation experiments the milk from the diseased cow is injected directly into the tissues, and if any bacilli are present they must find lodgment; and in feeding experiments the animal experimented on is fed on this milk continuously, with every opportunity for contracting the disease, and yet, notwithstanding the favoring conditions, we find only a small proportion of experiment animals becoming tuberculous, and, as in natural conditions, when we mix this milk from tuberculous cows with the milk from healthy cows, the danger is just so much the less; if, then, we remove these diseased cows from the herd (even if we only make a physical examination in detecting the disease) and use only the milk from apparently healthy cows, we reduce the danger to a minimum.

In summing up his report to the Society for the Promotion of Agriculture, Dr. Ernst says: "While transmission of tuberculosis by milk is probably not the most important means by which the disease is propagated, it is something to be guarded against most carefully."

These conclusions of Dr. Ernst's, as has already been pointed out, are drawn from experiments with cows known to be diseased only through physical examination; that is to say, in those cases the disease was well advanced and the animals were evidently diseased animals, and it follows of course that care should be taken to exclude the milk of all such animals from the market.

But it does not necessarily follow that cows reacting to tuberculin, *but showing no physical evidence of disease*, are equally dangerous.

In this line it would be interesting to see the results of a

series of experiments with cows which show no evidence of disease on physical examination, but which do react with tuberculin.

Judging from the results of Dr. Ernst's experiments, and from the slight evidence of disease as shown by such post-mortem examinations as are reported by the Bureau of Animal Industry and the Hatch Experiment Station, I believe the milk of but a small fraction 1% of those animals would be found capable of producing the disease in rabbits or guinea pigs by either inoculation or ingestion.

But the best evidence of the absence of great danger is to be found in such statistics as those collected by Dr. Watson, Secretary of the State Board of Health of New Hampshire.

The statistics collected by him are collected from slaughter house reports, and show the amount of tuberculosis found in calves, and as calves are fed exclusively on raw cow's milk they offer by far the best of natural experiments as to the amount of danger to human beings from the use of cow's milk.

In	23,557	calves slaughtered there were only	2	cases of tuberculosis.
	30,477	"	"	"
	143,218	"	"	35
	23,592	"	"	"
	800,000	"	"	5
	24,766	"	"	"
	85,685	"	"	26
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	1,133,295			71—.006 per cent.

Dr. Watson then goes on to show that the only explanation of these figures is that there are but "few bacilli in the milk of most tuberculous cows." (N. H. Board of Health Report, 1892.)

These statistics are further borne out by the Records of the Central Slaughter House, Berlin, which show "that between April 1, 1889, and March 31, 1890, 154,218 cattle and 125,338 calves were slaughtered, of this number 1,397 cattle and only 30 calves were tuberculous." (Jour. Comp. Path., June, 1890.)

My own personal experience bears this out. Some years ago I had the veterinary charge of a large dairy herd of about 400 to 500 head, mostly Jerseys. Tuberculosis was very prevalent in the herd. With the exception of the best of the

heifers, the calves were usually fattened and slaughtered for veal, and I have not seen a single case of tuberculosis in any of the calves slaughtered.

Further, it might be inferred from the reference to cholera infantum in the Report of the Cattle Commissioners, that a large proportion of these cases are caused by tuberculous milk. "Milk diarrhoea or cholera infantum," however, is not due to the bacillus of tuberculosis, but it is due to the absorption of ptomaines, or products of fermentation in impure milk—milk that has been contaminated, as a rule, after leaving the cow.

In fact, the greatest danger to infants from using cows' milk is not so much from tuberculous milk as from milk made impure by contamination after milking, or being made unfit for food through improper feeding of the cow.

"It is not necessary that milk should be infected with some specific organism to make it unfit for food." (Med. Record, Sept. 19, 1891.)

In face of these figures, then, and in view of the fact that the mortality from tuberculosis has fallen 35% within the past few years, is it just and reasonable to demand the general use of tuberculin in all herds throughout the country, with the wholesale destruction of all animals that react to the test? In Europe, where they use tuberculin to a great extent, they do not consider it necessary to destroy all animals that react.

In referring to this matter, Prof. Bang of Copenhagen, Chief Veterinary Surgeon to the Danish Government, says:

"It is an undoubted fact that, in the large dairies, when tuberculosis exists in them, it is so prevalent that the number of cows which give a hyperthermic reaction may be as high as eighty per cent. It is therefore evident that it must occasion an enormous loss to the proprietors to slaughter a large majority of their best milch cows, and to deprive them of the possibility of maintaining their stock without buying more—a matter of great importance when the cows are good. In my opinion such a course is much too severe. Why not keep for years those cows which are apparently healthy, and do not exhibit the least sign

of tuberculosis, except the febrile reaction after injection? And why, also, prevent their breeding? The great majority of such cows are only affected in a very slight degree; a good many of them have only some small nodules in the lymphatic glands, and there is no reason to believe that tuberculosis would rapidly develop in such animals. Frequently enough the disease remains limited for years, and in some it is even possible for recovery to take place; at least I have very often found small and perfectly calcified tubercular deposits in aged cows. Such cows might give birth for years to absolutely healthy calves. I am inclined to attribute to direct heredity—that is, contagion from mother to foetus—a larger share in the propagation of tuberculosis than Nocard does. Up to the present time I have examined twenty cases of tuberculosis in the foetus and twenty newly-born calves, but the disease is never transmitted to the foetus unless the mother is in a very advanced stage of the disease—probably always generalized. When the cow is only slightly affected, the calf is always born healthy.

"I am, therefore, of opinion that all the tuberculous cows, apparently healthy, should be kept and allowed to breed; but, at the same time, they ought to be well separated from healthy animals, and their calves should be removed from the infected sheds immediately after their birth." *Vety. Mag.*, Dec., 1894, p. 779.)

Again, Nocard, one of the best known veterinarians in Europe, does not believe it necessary to destroy them, but says: "They may be fattened and fed for beef."

*(To be continued.)*

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#### ADDRESS OF DR. C. B. ORVIS,

PRESIDENT OF THE CALIFORNIA STATE VETERINARY MEDICAL ASSOCIATION.

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GENTLEMEN: In assuming the presidential chair of this association for the ensuing year, permit me to thank you most sincerely for the honor you have conferred upon me. By being

unanimously elected, I feel gratified at such an expression of esteem and confidence. I know you have not given me this position for any special service I have done, or for any special professional ability. I consider it, therefore, a mark of favor or respect for the common practitioner who has tried to do his duty in his district, both to his patrons and his profession, to the best of his ability.

It was with considerable diffidence that I allowed my name to be used for this important position, and knowing, as I do, the capacity of the man whom I am to succeed, and the great amount of work accomplished and more begun but uncompleted that we have to finish if we continue to prosper, makes me feel inadequate to the task.

To the secretary, the greater part of the burden of an association falls, and I am thankful to know that Dr. Archibald, who has served the association so faithfully in the past, will continue the same zeal in the future, and as for myself, I promise you every effort of which I am capable for the welfare of the association. Our efforts, however, will be of no avail unless we have your hearty co-operation ; but I feel sure it will be accorded us, and I therefore enter upon the duties with much confidence in the prosperity of our society for the present year. The value of these meetings are hard to estimate. We meet here together on a level—exchange ideas, relate experiences, report cases, etc., etc.; then we go home refreshed. If on going home one cannot see where he has been slack or negligent in one way or another ; if he does not feel like referring to his text-books, case-books, etc., and brush the dust off his desk and shelves, and if he is not quicker to notice dirt in the hospital, or an untidy box, and if he does not take a little extra pains to dust his clothes and black his boots, he has not received the same amount of enthusiasm that I have received. These are personal advantages, and our programme should be so arranged as to arouse this feeling and to educate each member in the different branches of our calling, and in this way we are best able to keep informed as to the use and application of

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the latest agents, methods and appliances whereby we may become proficient and most skilled in our profession. Herein lies the secret of large membership and good attendance, but is second to the main object of our association, viz.: To advance the standing of the veterinary profession and to obtain positions and recognitions that rightly belong to it. The plans for procedure to this end can best be discussed at our association and committee meetings, but I will make no reference to them here.

In the past nine years—for that is the length of time I have been identified with the work in this State—the common people have been greatly enlightened as to the mission of the veterinarian. There is no longer a place for the empiric who says glanders is unknown here, or the man who went through the country armed with a saw who contended that nearly all horses could be greatly benefited by the use of that instrument applied in shortening the incisor teeth. While there are a few who still succeed in disposing of their so-called sure cures, they are becoming more scarce all the time and the qualified veterinarian is being consulted as to the reliability of said nostrums before purchases are made.

While there are many things to be proud of for the recognitions we have received and the advances we have made, yet we have many hindrances and oppositions that will require our most earnest and continued efforts to overcome.

During the past year we have been more than commonly recognized by our medical brothers. They are recognizing the advisability of having skilled veterinarians as meat and dairy inspectors and recognizing their ability as sanitarians. They have invited us and we have become members of the State Sanitary Board, and our essays, remarks and resolutions have received courteous attention and favorable mention.

Dr. Ruggles, President of the State Board of Health, has shown not only to me personally, but to the profession, many favors and courtesies. This same spirit has been more generally felt throughout the State of late, all of which shows to my mind

that we are showing to the world by our professional and gentlemanly demeanor that we are entitled to a higher standing both professionally and socially than we have yet received. The very discourteous treatment a number of my friends and myself received at Stockton last May in carrying out the duties of a public office at the hands of those connected with a State institution was entirely unwarranted, and received the just condemnation of the press of the State, and goes to show that the mass of the people are ready and willing to accord us that esteem and confidence we so much desire.

Within the last few months the State University has established a branch in the form of a veterinary college. In this connection I feel like giving special credit to those by whose efforts the California Veterinary College has been established, notably Drs. McNutt and Bowhill. The adoption of a curriculum comprising three college years is commendable, and it is hoped that the requirements for matriculants adopted will be strictly adhered to, so that none but gentlemen of intelligence and ability, coupled with a fair general education, can gain admission to the college.

It would also be highly gratifying to me should the Directors adopt the plan of having competent professional men to conduct the examinations in place of having the teacher examine his own pupils. This plan in effect will eventually be adopted by all the colleges, we believe. The California College properly conducted can't help but be a power in advancing the standing of the profession on this coast.

The defeat in the Legislature of the bill providing for State and county veterinarians, quarantine laws, etc., is to be regretted. The need of such a law is apparent at every hand. The extent that contagious animal diseases are allowed to exist without restrictions in this State is unparalleled, so far as I am informed. While the present condition is highly detrimental to the live-stock interests of the State, we, as veterinarians, can console ourselves in the fact that the greater the amount of disease, the more the practice for the general practitioner, until

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such time shall come that our efforts for the best interests of our agriculturists shall be better appreciated by our legislators.

In our association we have demonstrated the strength of unity of action and purpose, for nearly everything that has been accomplished in our State in the past nine years, of importance to the profession, has been done by the energies of this association and its members. In the past our numbers have been small, but with our now quite large and increasing membership, if we can enthuse that same energy and unity of sentiment—and there is room for more harmony than has been displayed—into our large membership, we will indeed be a power, and, judging from what has been accomplished in the past, we will soon be on equal terms with the profession in the Eastern States, if in fact we do not surpass them in professional standing.

Now, before closing my remarks, I desire to draw your attention to another matter, one that it seems to me has caused a great deal of discredit to be given to the veterinarian, and all because we have allowed people to be misinformed. I refer to the nature of glanders, as understood by the ordinary horse owner. Much of the matter taught and written upon this subject, I think, most of you gentlemen will agree with me is incorrect—at least misleading.

Glanders is a loathsome and much-to-be-dreaded contagious disease, not because, as people think, it is very rapidly fatal, and because if one animal has it all other animals susceptible must likewise contract the disease and shortly die that have been in close proximity to said diseased animal, but more properly because it shows itself in so many different forms and exists many times without outward manifestations, or but so slightly as not to cause suspicion of disease, but all the time said animal is spreading the disease to other animals of susceptible species. Also, because as a rule the beast has to submit to a long, lingering disease, from which there is no hope for recovery.

I inform my patrons in the following manner: Glanders is a

contagious disease, communicable to man and nearly all the domestic animals—the ox being a notable exception. That it usually runs a slow course, with periods of latency and acceleration. That the disease at all times and stages is dangerous, but that at times the virus, if present, is much less active and the disease consequently less contagious. That the period of incubation is uncertain. That if once inoculated no known agent will prevent the development of the disease, and that Mallein will detect the presence of the disease if it exists, whether there are any visible manifestations or not. Impress upon them the necessity of extreme vigilance in order to detect the hidden workings of this very prevalent disease. Refute the assertion that the left nostril is necessarily the location of the disease in glanders, or that an unthrifty condition of the animal always accompanies it.

I make mention of glanders because of the gravity and prevalence of the disease, and, on account of the seriousness of the existant condition, the people should have a correct knowledge of it.

With proper laws and competent officials to execute them, with the use of Mallein in diagnosis, this ever dreaded disease should become unknown in the near future to the common practitioner. I should like to say more of this valuable agent, and also of Tuberculin and Anti-Toxin, but not choosing to intrude on your valuable time longer, I will desist.

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### THE PROFESSION "WAY DOWN SOUTH."

W. H. DALRYMPLE, M. R. C. V. S., late Baton Rouge, La.

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The Veterinary Profession is no doubt making steps toward advancement in the more Southern States, that is, if the increase in the number of graduates practising means anything, and we are full of hope that it does mean a great deal—good results ought in time to appear, and the stock-owner, who has for so long, and still is to a large extent, the victim of "hoodooism,"

illiteracy quackery, etc., will be benefited, and his eyes will be opened to the fact that the veterinarian is the practitioner of a *branch of medicine*, based upon a knowledge of physiology, pathology, and therapeutics, similar, although we might say of wider range, from a medical standpoint, on account of the various types of animals with which he has to deal, than his brother in the field of medicine which embraces only the human species.

Progress is slow in the education of the laity to the appreciation of the importance of the profession as conservers of public health and wealth. Such work must devolve upon the representatives of the profession, and cannot but result in personal benefit, as well as the elevation of our branch of medicine to its rightful level of one of the learned professions.

There is an old and widely prevalent belief among the laity, as well as a great many human practitioners, who are encased in a limited sphere of knowledge concerning their own special branch only, that there is a mystery encircling the principles and practice of veterinary medicine and surgery as compared with that of the human subject. This, of course, can be accounted for by the long practised "humbugism" indulged in by the ignorant quack, to cover up his own want of knowledge, as well as to throw mystery around his so-called specifics and operations, and contracted knowledge and research on the part of some of our M.D.'s. from the standpoint of comparative medicine. We believe we are justified in making this latter assertion, when we state that we have been asked the question by a dean of a medical college, if a horse ever had pneumonia? and was told by another that he was not aware that cattle ever suffered from tuberculosis until he read it in a veterinary periodical within six months.

The work of elevating our profession by our graduates to the level where recognition and appreciation of it is forced upon the people, is perhaps a laborious one, but, if ever it is to take its legitimate place among the other learned professions in the South the work must be begun and completed by those who are qualified members of it.

We find in some states South—and we presume it is the case to some extent all over the country—men of the “flying specialist” order, so-called veterinary dentists, cure-alls, etc., poaching on the territory, and at the very doors of the qualified veterinarian, taking barrels of money out of the pockets of the unwary stock-owner by charlatanism, and depriving the practitioner of that which ought to be his. We feel surprised, and exclaim, “however can people be fooled in such a manner, when there are qualified men right in their midst?” An important question seems to arise right here: Are we, by legitimate and professional methods, forcing ourselves and the importance of our profession before the eyes of the public? Are we trying to convince the people, that by our superior knowledge, qualifications and conduct, we are more worthy of their confidence and esteem than the empiric and swindler, and that we are the jealous guardians of the integrity of a noble branch of medicine, whose beneficent results are so far-reaching in preventing and alleviating the sufferings of the dumb animals, as well as playing a most important part in controlling and eradicating transmissible diseases which are fatal to humanity?

It is beyond doubt that a good work is being done in those states who have veterinarians attached to the staff of their Experiment Stations—their position affording them a favorable opportunity to enlighten the people on the possibilities and advantages of veterinary science, when professionally applied, in contradistinction to the ignorant and often barbarous methods of the illiterate quack, or even those who are qualified, in the eye of the law, by being possessed of a piece of sheepskin. A profession is elevated or degraded by its representatives. A public who have been from time immemorial, accustomed to empiricism, cannot be expected to realize or appreciate the wonderful changes in the “horse doctor,” brought about by suitable education and training, unless the practitioner himself keeps abreast of the advances of his profession, both professionally and socially, for it is the man who makes his profession what it is.

Although the majority of practitioners do honor to their calling, there may be those whose only regard for their diploma is its use as a means for money-making, which is to be deplored. Of course, it ought to be the aim of everyone to do the best he can for himself, financially, but such is not incompatible with at least an effort at raising and upholding the professional standard.

With regard to this latter point, we should like to allude to the usual headquarters of the veterinary surgeon in the South—and probably in other sections—and that is the livery stable. It seems to be a custom, which is very generally in vogue, and there may be some good reasons in favor of it, from the standpoint of economy to the practitioner, but, we are strongly inclined to the opinion, that this system has done as much, if not more, to lower and keep down the social and professional standing of the veterinarian than any other, in the eyes of the better class of people, whose society and practice it ought to be his aim to cultivate, especially in city populations.

The livery stable owner may be an honored and respected citizen, but everyone knows that the atmosphere and surroundings are more calculated to degrade than to elevate a professional man in the opinion of the better class of inhabitants. This is no empty theory, but a fact which we know to be true, from expressions on the subject by gentlemen who realize that the profession merits a much better standing.

It is the head-office of the quack, because there he meets with congenial spirits of his own type, in the usual crowd of loafers; but why an educated veterinarian should be an attaché of the ordinary livery stable, it is hard to reconcile with the desire for professional advancement. We have no criticism whatever to offer with regard to the livery, feed or sale stable businesses, they are highly honorable and legitimate industries, but it is the veterinary surgeon's idea of the seemingly absolute necessity for identifying himself with, and making his office and headquarters at these establishments, which we think is erroneous, and is detrimental to the dignity of a profession,

which in some sections of the Union and in other countries is recognized as on a level with other professions, and a most important branch of medical science.

We have had an opportunity of observing a condition of things with regard to the standing of the profession in some of our large Southern cities, which we are forced to believe is brought about very largely by what we have alluded to, viz: our business relations and associations. In one large commercial center, where there are several graduates, and as many non-graduates, the latter are just as much thought of professionally (?) in the community as the former, or in other words, the graduates do not seem to have impressed the fact upon the general public that they are the exponents of a noble science and art, achieved by education and study, equal to, and in many instances greater, than that required by a large number of the medical colleges of the country, and are consequently superior to the empiric, and more worthy the patronage of and social recognition by an enlightened community, but such appears to be the case, nor will it be changed, we are afraid, so long as the one is content to remain on the same level with the other. Under such circumstances, patrons and the general public cannot be blamed, for it is a fact, that the majority of the people are not aware that there is a particle of difference, as to ability, between the professional man and the jack-leg. When anything goes wrong, which the ignorant coachman (colored usually) cannot chance to right, a livery stable is connected by telephone, and a *horse-doctor* requested to be sent. Even should he be a graduate, he rarely seeks, and more rarely is given, an audience with the owner, on the subject of the ailment of his animal, being or having to be content to transact his professional business with the coachman or hostler.

It is a fact, of course, that the profession is sparsely represented in the greater part of the South, and no legal protection given to graduates, but, for that reason alone, if for no other, we think qualified practitioners ought the more to assert themselves, and while doing all they can to legitimately fill their

own coffers, try to throw a professional halo around their own head, which would illumine much of the darkness and help dispel the ignorance under which we are laboring, and thereby add to the dignity of our honorable calling.

Another point worthy of mention in this connection, which we think often militates against the social success and dignity of the veterinarian who is part and parcel of the livery or feed stable, and that is, when one is requested to examine horses for clients. A gentleman wishing to purchase a horse or pair of horses subject to examination, should it be from the establishment to which the examining V. S. is attached, he naturally is inclined to feel that the examination is apt to be in favor of the seller. It may be unreasonable to think so, but why shouldn't he? Even if the surgeon is perfectly independent and gives a conscientious opinion—and we hope all do—the very fact of his seeming connection with the vendor is sufficient often to shake the confidence of the buyer in his veracity, which reflection extends further than to the mere individual.

These instances quoted are not for the purpose of condemning the custom referred to, and the possibilities accruing therefrom as positive evils, *per se*, but we think it can be easily seen how such a custom is more calculated to prevent proper professional recognition and retard our progress, as a profession, than otherwise.

The veterinary surgeon is an individual on whose opinion and integrity his client has to rely, and which mean a great deal. That opinion should be straightforward and scrupulously honest, no matter how it hurts, but if, through business or other relations, we leave room for the honesty of our opinion to be doubted, then we do harm, and we must remember that not only are we the individual sufferers morally, but our profession more so.

We have said the present system is an old one, and it will no doubt take a long time to make any radical changes, if ever, and it may occur to some that we are condemning without advocating any means for improvement. We would, however,

suggest that where it is at all practicable the veterinarian ought to have his own establishment, however small it may be, fitted up with hygienic carefulness as far as circumstances will permit, for the comfort of his patients—with his little office and pharmacy, neatly and attractively arranged, where clients can come to seek professional advice, or send their animals to be treated, and feel there was something of a professional air about the place.

The veterinary infirmary or hospital is a necessity, and when well appointed and equipped, is a legitimate and standing advertisement, not only to the veterinarian himself, but to the profession, and we feel sure that the public would not be slow to both recognize and patronize such professional progression, and come to feel that the veterinarian was not simply a somebody usually to be found about a livery stable, but that he and his professional quarters were as much to be recognized and appreciated as necessary to the well-being of a community as is the M.D. with his office and surgery, or in fact any other profession.

We do not deem it necessary to go into any lengthy discussion of the subject. To everyone who has the interests of his profession at heart, the situation we think is plain enough. The few facts quoted and suggestions given are not from any spirit of courtesy to any of our professional brethren, but as food for thought, and with the view of trying to raise the standard of our profession in the eyes of the people, which is sadly needed.

We have veterinarians in this country holding positions high up in both the social and professional scales, and in other countries there are those who have had honors conferred upon them for professional attainments by the sovereigns of their different realms—and although we are not oblivious to the fact that we are only in our infancy and few in numbers, comparatively, in this southern section of the Union, there is no good reason why those of us who are here should not use every legitimate means in our power to elevate ourselves, and by so doing convince the people that we are the followers of a *profession* which is as honorable as it is noble.

## MODERN NEUROTOMY, WITH ESPECIAL REFERENCE TO THE LOW OPERATION.

By T. B. ROGERS, D.V.S.

*Local anaesthesia.*—The use of cocaine for the purpose of producing local anaesthesia during the performance of neurotomy is, I believe, a distinctly American procedure; the first time I ever saw it used was about ten years ago, when Prof. R. S. Huidekoper made the upper operation on a patient suffering from tetanus. While cocaine is the drug usually used when painless section of the common integument, or other tissues is desired, I have found cold water equally efficacious in large incisions of the skin necessary in the removal of tumors, &c., indeed the most perfect local anaesthesia I ever saw was due to the injection of water prior to the operation for fistulous withers.

The local anaesthesia following the cocaine injection is usually marked, though occasionally cases are met with, where either through idiosyncrasy or systemic absorption of a too concentrated solution, the patient becomes unmanageable.

Part of this anaesthetic effect is doubtless due to pressure on the nerve endings by the injected liquids, part to the specific effect of the drug. (I may mention in passing that I have on one occasion used a ten per cent. solution of citrate of caffeine with great success in a case of needle firing of the fetlock). As cocaine produces a temporary vaso-motor constriction, and hence diminishes the local blood supply, its use makes the operation somewhat less bloody.

*Strength of the solution.*—A four per cent solution has given me uniformly good results, and is less liable to cause excitement than the stronger solutions used by some operators, under the mistaken idea that a more perfect anaesthesia will be thus obtained.

*Not more than thirty minimis should be injected over each nerve,*

a larger injection, by its infiltration of the overlying connective tissue, tends to obscure the operation.

I have never bandaged the leg above the seat of the injection, or attempted to diffuse the fluid by pressure, and an experience of more than 150 cases warrants the statement that such a course is necessary.

I make consecutive injections over all four nerves, and as soon as the last one is made, proceed to divide the nerve first injected.

The veterinary hypodermic syringe has usually too long, and stout a needle for this operation, while the human needle is too delicate. A *short slightly curved* needle, of calibre between the two, is the ideal instrument; it is not so apt to be lost should the patient swing his leg when he feels the puncture, and the curve renders it less liable to injure the vessels.

A drop of carbolic acid should be added to every four drachms of the cocaine solution.

*Means of restraint.*—A twitch may be used while making the injections, although many patients are quieter without it; no other restraint is necessary.

*Position of the limb.*—The leg is flexed at the knee, and extended at the fetlock, is slightly abducted when the outside is to be operated on, while for the inside, it is so strongly adducted as to cross the opposing member. (I have operated on a few cases, for ringbone, in the posterior extremity; in these I had an assistant hold the limb like the smith does to dress the hind foot, but I am frank to say that I prefer to cast in these cases).

*The operation.*—Instruments required—a good sized scalpel, scissors curved on the flat, a large stout aneurism needle with serrated point, and a curved, probe-pointed tenotome, are all the instruments necessary. I have for some years used this aneurism needle instead of forceps, and find it much preferable to them; it has the great advantage of allowing the operator to do his own sponging, it tears the connective tissue rapidly and neatly, and is used after exposure of the nerve, to pass under it and stretch it.

*The technique of the low operation.*—Immediately below the metacarpo-phalangeal articulation, a surgical triangle is formed, its base, reversed, is represented by the lower part of the articulation, and being shorter than the other two legs renders the triangle isosceles, the anterior leg is formed by the posterior external or internal border of the first phalanx, while the posterior leg is formed by the anterior edge of the perforans tendon.

Within this triangular space (which is well marked in a clean limbed short-haired horse) are contained the vessels and nerve of the lower part of the digit; their position, running from before to behind, may be recollected by the unremonic word VAN—vein, artery, nerve. They are crossed superficially, and somewhat obliquely by the tendon of the ergot; this tendon varies in shape, sometimes it much resembles in appearance and calibre the nerve of the part, again it may be double, or may form a somewhat broad and considerable sheet, whose division may be necessary in order to reach the underlying nerve.

A bisection of this triangle on the line of its long limbs allows the nerve to be readily reached. When exposed it should be stretched until an inch can be readily removed from a cutaneous incision of about half that length. Nerve stretching is an important part of the procedure, as it allows the cut end to retract beyond reach of the cicatricial tissue, and thus avoids the danger of subsequent neuroma, and as the nerve is much more extensible than the artery, it allows differentiation in case the operator's eye for form and color is not good, or in cases where the slight haemorrhage obstructs the view. It is not necessary to expose much of the nerve before passing the needle under it, and I often isolate it by passing the point of the needle beneath it, then using the needle as a lever, with the first phalanx for a fulcrum, draw the nerve from its bed. We must look for healing by first intention, and remember that every torn shred of tissue lessens the chances of our gaining that end. When the nerve is sufficiently stretched it should be held taut outside of the incision, the distal end removed at the lower commissure so as to leave for healing but a clean skin wound.

The wounds should be irrigated with water until the slight haemorrhage stops, then washed out with a weak creolin or bichloride solution, and be drawn together by a somewhat narrow bandage. This, kept wet with an antiseptic, is left on until cicatrization takes place, unless swelling occurs above or beneath it.

*The after care of the foot.*—If possible lower the heels and turn the patient out for some weeks after the operation. A practitioner of great experience once remarked to me that he believed that this was almost as important as the operation, and I am inclined to go a good part of the way along with him. The foot should be soaked occasionally, and extra attention must be paid to its condition in hot, dry weather.

Is the low operation advisable?

There is a difference of opinion on this point. My own experience has been so considerable that I may keep within the bounds of modesty while giving an opinion. When we consider that the low operation always gives relief, that this relief is usually marked, that the operation is as nearly absolutely safe as an operation can be, and that in cases of partial failure it paves the way for a subsequent high neurotomy (for I believe that a low operation prepares the foot by a gradual alteration of nutritive conditions for the safe division of the plantar nerve), we must admit that a strong case has been made out for it.

*What are the usual causes of total or partial failure?*—Mistakes in diagnosis, running horsemen often have a low neurotomy done when the patient is suffering from concussion of the immature bones or sore shins. I believe that occasionally the tendon of the ergot is divided in mistake for the nerve (I did it once myself). Leaving the nerve end in the wound is a common cause of failure, and this may be suspected in all cases where there is tenderness on pressure over the region of the scar, even when no clubbing of the nerve end can be demonstrated.

## REMARKS ON OSTEO-POROSIS.

By N. B. RHODES, D.V.S., Tampa, Florida.

*To the Editor of the American Veterinary Review :*

Early in the winter of 1893-4 the idea began to take possession of my mind that the dreaded disease, Osteo-porosis, was due to micro-organism. I came in contact with an alarming number of animals suffering with this malady, both in the horse and mule. In some cases the disease would attack an animal and run its course to a fatal termination in a very short time, say two to four months. Other cases would linger on for months, with occasional periods in which the animal would seem to improve, then the disease would seem to take a fresh hold, and progress with renewed energy to a fatal termination; in some rare cases the disease would seem to be checked, or held in abeyance, as it were, the animal doing moderate slow work all the while, with little or no show of discomfort.

Carefully investigating numerous cases, I found that scarcely, without exception, these animals showed more or less febrile disturbances, the temperature never reaching a very high point, but nearly constant. I think 102 3-5° F. is the highest point in my record. One to two degrees is about the average. Early in the spring of '94 I was called to see a horse, some twelve miles west of the town, belonging to a widow lady. It was a case of Osteo-porosis in an advanced or inflammatory stage. I advised the destruction of the animal; a week later the horse was destroyed, and the lady came to town to purchase another, and secured my service in examination for soundness. A beautiful bay gelding, six years old, was selected, and found to be sound after a very thorough examination and severe test. This horse was given the same stable that the previous one occupied, and in three months had contracted "Big Head." This horse was traded for another, placed in the same stable, and he also contracted the disease. This animal was disposed of, the stable

was burned, at my suggestion, since which time she has had no further trouble.

During this time a gentleman living four miles north of town was having identically the same experience—the destruction of animals affected and *of the stable*, the atmosphere of which had been thoroughly impregnated with the bacteria.

Another like instance occurred at a phosphate mine fifty miles north of here, where three mules had the disease, two of which, I am quite convinced, contracted the disease from occupying stables in condition as above recited.

After much correspondence, I had, about the middle of last summer, the good fortune to secure the valuable service of Prof. Billing, of Lafayette, Ind., who was making some microscopic researches in Florida in behalf of the Government, and who was prepared with the necessary instruments, storing fluids, etc.

A subject was secured at a cost of \$25, and we took specimens from the lower maxilla, the scapulo-humeral articulation, sawing about four inches of each bone, the lumbar region of the vertebral column, a quantity of blood and urine. In each of these specimens we found the microbe in enormous quantities; the urine we could not examine as we had no polariscope. They are of the round or coci sanity.

Prof. Billing carried with him these specimens, and I regret that I have heard nothing further from his researches.

From these investigations I construe that it is never safe to allow one animal to come in contact with another suffering with "Big Head" for any length of time, or more particularly to occupy a stable previously inhabited by a "Big Head" patient, without first very thoroughly disinfecting the premises with a strong solution of bichloride of mercury, say 1-300.

Will not some of my brother veterinarians give us their experience and observations on this dreadful disease, and those among you who have the instruments will find, I think, much pleasure and food for thought in these researches.

## SOCIETY MEETINGS.

## CALIFORNIA STATE VETERINARY MEDICAL ASSOCIATION.

SAN JOSE, CAL., March 13th, 1895.

On the above date the California State Veterinary Medical Association held its regular quarterly meeting at the St. James Hotel, San Jose, Cal.

The president, Dr. C. B. Orvis, called the meeting to order at 3 P.M.

Upon roll call the following members were found present: Drs. Orvis, Spencer, Sr., Spencer, Jr., Egan, Forrest, Sr., Forrest, Jr., Wadams, Schodde, Shaw, Skaife, Fabbi and Archibald. Visitor: Prof. A. A. Cunningham.

Letters of regret were read from Drs. Pierce and Maclay.

Under the head of reports of Board of Examiners, Committees, etc., there not being a quorum of the Board of Examiners present the chair appointed the Secretary to act on the Board in conjunction with the two members of the Board that were present. A recess was declared in order to allow the Board to consider applications for membership. Upon the reconvening, the Secretary submitted the following report:

GENTLEMEN:—Your Board of Examiners having had under consideration the applications of Drs. J. R. Shaw, A. B. Wise, J. A. Edmons, J. J. Streets, B. W. Schodde, J. W. O'Rourke, E. J. Creely, S. A. Withers and R. J. Withers, respectfully recommends that they be elected to membership, also having had under consideration the applications of O. C. Baldy and J. Trullinger, respectfully recommend that their applications be rejected. Signed by Drs. Spencer, Sr., Egan and Archibald.

On motion, duly seconded, the report was accepted and placed on file.

The Committee on Legislation was then called upon to report. Owing, however, to the absence of the Chairman, Dr. Spencer, Sr. gave a partial report, which was completed by the

Secretary. The report was accepted and the committee discharged. In this connection Dr. Spencer, Sr., made a few remarks regarding the support given the Committee on Legislation by the members of the association. He stated that the failure on the part of the committee to obtain the passage of Assembly Bill No. 210 was entirely due to the lack of interest taken in the matter by the members. The Secretary also made a few remarks on this subject, in which he stated that it was impossible for one or two members of the association to obtain any legislation alone; he also stated that where a legislator had been interviewed by a veterinarian from his district he invariably proved a friend to any bill introduced by the profession.

Under the head of Application for Membership, the Secretary presented the name of C. L. Megowan. The name was referred to the Board of Examiners.

Under the head of Admission of New Members, the following gentlemen were elected: Drs. J. R. Shaw, A. B. Wise, J. A. Edmons, J. J. Streets, W. B. Schodde, J. W. O'Rourke, S. A. Withers, J. A. Withers and E. J. Creely.

Under the head of New Business, Dr. Wadams moved that the thanks of the association be tendered Assemblyman Berry for the great interest he had taken in Assembly Bill 210. Carried.

On motion of the Secretary, a committee consisting of Drs. Wadams and Spencer, Sr., were appointed to convey the thanks of the association to Assemblyman Berry in a suitable manner.

The subject matter of sending a delegate to the next meeting of the U.S.V.M.A. was brought up by Dr. R. A. Archibald, who endeavored to portray to the members the necessity of such action on their part; he also stated that it was his opinion that if the association evinced sufficient interest in the matter during the next two years the U. S. V. M. A. would decide upon California as the place of meeting in the year 1897.

Dr. Spencer, Sr., also spoke on this subject in the same strain as the Secretary had done.

The Secretary moved that the association levy an assess-

ment of five dollars per capita for the purpose of defraying expenses of a delegate to the next meeting of the U. S. V. M. A., also that the Secretary be instructed to collect same and at the same time notify the members that at next quarterly meeting held in June a delegate would be elected. The motion was duly seconded and after considerable favorable discussion it was eventually adopted unanimously.

Prof. W. F. Skaife on behalf of the Faculty of the California Veterinary College, extended to the association an invitation to hold their meeting in the college building when they again met in San Francisco.

The following resolution was presented and adopted unanimously :

WHEREAS, It is a notorious fact that during the twenty-ninth, thirtieth and thirty-first sessions of the State Legislature, one Thomas Carpenter, a veterinary surgeon and a resident of Oakland, did use all means in his power to defeat any and all movements toward the advancement of the veterinary profession in the State, and

WHEREAS, This action on the part of the said Thomas Carpenter was wholly due to the jealous and abject sentiment which rankled in his breast toward the members of the California State Veterinary Medical Association and other members of the veterinary profession in the State, who have always and are yet struggling to gain public recognition as practical sanitarians and as scientific gentlemen, and

WHEREAS, The veterinary profession in the State of California has suffered through the actions and machinations of the said Thomas Carpenter, and

WHEREAS, The said Thomas Carpenter is at the present time endeavoring to gain the position of Meat and Milk Inspector to the Board of Health of the City of Oakland, therefore be it

*Resolved*, That we the members of the California State Veterinary Medical Association do hereby protest against the appointment of the said Thomas Carpenter to the office of Meat

and Milk Inspector in the City of Oakland, as we believe that such action on the part of the Health Authorities would work a hardship on the people of the City of Oakland and at the same time be a detriment to the interests of the veterinary profession throughout the State of California, and be it further

*Resolved*, That a copy of these resolutions be forwarded by the Secretary to the Oakland Board of Health and that a copy be spread upon the minutes.

Signed,

C. B. ORVIS, *President.*

R. A. ARCHIBALD, *Secretary.*

Upon motion the President, Dr. C. B. Orvis was authorized to represent the association at the next meeting of the Sanitary Convention to be held in San Francisco in April.

The Secretary moved that when this meeting adjourns it adjourns to meet in Stockton on Wednesday, June 12th, 1895.

Upon motion the association took a recess until 8 P. M.

#### EVENING SESSION.

The association reconvened at 8 P. M., President Orvis in the chair.

Under the head of Reading of Papers and Discussions, the president, Dr. C. B. Orvis, delivered his inaugural address, in which he thanked the members for the great honor they had conferred upon him, he reviewed the progress of the profession in this State in the past nine years, also the efforts of the profession to obtain suitable legislation. He dwelt considerably on the prevalence of glanders, tuberculosis and other contagious and infectious animal diseases, and he deplored the lack of proper laws for the control of same. The address was listened to with much interest by the members present and the applause that followed its reading showed the manner in which it was appreciated.

The next business on the programme was the reading of a very interesting and instructive paper by Dr. H. A. Spencer, entitled "Antiseptic Surgery." As usual the Doctor submitted

for the consideration of the members a spicy, practical and well written thesis. The discussion that followed demonstrated the fact that the subject was well chosen, as the members to a man participated in the discussion and showed by their attention and interest that they considered it to be one of the most important subjects that could have been submitted to them.

Owing to the unavoidable absence of Drs. Faulkner and Jackson, who were also appointed essayists for this meeting, no more papers were presented, but several interesting cases were reported by the different members.

Upon motion a vote of thanks was tendered Drs. Orvis and Spencer, Sr., for the able and zealous manner in which they had entertained the meeting.

The Chair appointed the following named gentlemen as essayists for the next meeting: Drs. Fox, Skaife, Eddy and Fabb.

The Secretary made his regular quarterly statement regarding the advisability of as many of the members as possible joining the U. S. V. M. A., he stated that he could supply application blanks to those who wished to make application for membership.

Drs. H. A. Spencer and H. F. Spencer extended to the members a cordial invitation to meet at their hospital and participate in a clinical entertainment. In behalf of the members the Chair accepted the invitation in the same spirit it was given.

There being no further business before the meeting it adjourned to meet in Stockton on June 12th, 1895.

#### CLINICAL ENTERTAINMENT.

On March 14th, 1895, at 9 A. M., the members of the California State Veterinary Medical Association assembled at the veterinary hospital at 224 E. St. John Street, San Jose, on invitation of Drs. H. A. Spencer and H. F. Spencer to participate in a Clinical Entertainment.

The first and second operations on the programme were the

castration of a double cryptorchid and a single cryptorchid by Dr. H. A. Spencer. In the performance of these operations the Doctor demonstrated the fact that he has no superior as an operator in the United States.

The third operation on the programme was the extirpation of a champignon by Dr. Archibald, ably assisted by Dr. H. F. Spencer. The operator demonstrated his method of operating on these cases on the operating table. The tumor resected was quite large and as far as its removal was concerned it was successfully accomplished.

The fourth operation on the programme was ovariotomy in a bitch by Dr. Archibald. This proved to be a peculiar case, inasmuch as it was found when the operation was well advanced that the animal was pregnant. However, the operation was completed and from latest accounts the bitch seemed to be doing well.

The fifth operation was the application of the actual cautery for the cure of sidebones. This operation was demonstrated by Dr. J. R. Shaw, who performed the operation with the thermo-cautery. The members were loud in their praises of the manner in which the operation was performed.

The sixth operation was the removal of a number of hypertrophied lymphatic glands from the neck of a dog. This operation was performed by Dr. H. F. Spencer, who gave ample proof of his ability as a surgeon of no ordinary skill and ingenuity.

The seventh operation was the amputation of the leg of a fox terrier bitch at the tibial region. This operation was performed by Drs. Spencer, Jr., and Archibald.

The members highly commended the manner in which the entertainment was provided for by the San Jose veterinarians and upon the completion of the seventh and last operation they dispersed to their respective localities, with the feeling that the time purloined from their business was by no means thrown away, and all expressed the conviction that clinical entertainments in connection with our meetings were a success and that

in future no ordinary circumstances would prevent them from being present at similar entertainments.

R. A. ARCHIBALD, V. S., *Secretary.*

SACRAMENTO, CAL.

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THE WISCONSIN SOCIETY OF VETERINARY GRADUATES.

The fifth annual meeting of the Society of Veterinary Graduates was held at Madison in K. P. Hall, Feb. 6th and 7th.

The meeting was called to order by the President, Dr. Woodford.

Roll-call showed eight members present, Drs. Arpke, Clark, Laws, Leech, Ormond, Roub, E. D. Roberts and Woodford, and one visitor, Dr. Watson.

The minutes of the last meeting were read and approved.

The annual reports of the Secretary and Treasurer were read and adopted.

On motion the question of patenting the seal was laid over for one year.

Charges having been preferred against Dr. S. G. Binger, by Dr. J. F. Roub, it was moved and seconded that he be notified by the Secretary to appear before the Executive Committee, and show cause why he should not be expelled.

The name of Dr. T. W. Watson was proposed for membership, and was referred to the Board of Censors, who reported favorably on the application.

It was moved and seconded that Dr. Watson be elected a member of the society. Carried.

The Committee on Legislation presented a bill to regulate the practice of veterinary medicine and surgery. After some slight changes, the bill was accepted as corrected.

It was moved and seconded that the Secretary be instructed to send out to the members each year a printed and corrected list of the members. Carrried.

Adjourned to 7 P. M.

The society was called to order by the President at 7.30 P. M.

On motion Drs. Scott, Clark and Laws were appointed to present the claims of the veterinary bill before the legislature.

None of the essayists being present the society proceeded to the report of cases. Arguments followed in regard to the conditions after death from lightning.

Dr. Roub reported a case of cerebo-spinal meningitis, which brought out a general discussion.

Moved and seconded that Dr. Clark be allowed the privilege of bringing his class before the society during the reading of the essays. Carried.

The election of officers resulted : President, Dr. J. P. Laws, Madison ; Vice-President, Dr. J. R. Kelso, Baraboo ; Secretary, W. G. Clark, Beaver Dam ; Treasurer, C. H. Ormond, Milwaukee ; Censors : J. F. Roub, Monroe ; T. W. Watson, Chippewa Falls ; and G. Ed. Leech, Milwaukee.

Moved by Dr. Leech, and seconded by Dr. Laws, that the Secretary be allowed his annual dues and railway fare to and from the association meetings for his services. Carried.

On motion the society adjourned until 10 A. M., Feb. 7th.

#### SECOND DAY—MORNING SESSION.

The society was called to order at 10.30 A. M., Feb. 7th, by the President, Dr. Laws.

Minutes of the last meeting were read and adopted.

Moved by Dr. Leech, and seconded by Dr. E. D. Roberts, that the society hold the semi-annual meeting at Chippewa Falls on the second Wednesday in August, 1895. Carried.

A resolution was introduced by Dr. Leech to control the society in the matter of the appointment of State Veterinarian. On motion the resolution was laid on the table until the next annual meeting.

On motion the following resolution was adopted : *Resolved*, That the society instruct the secretary to request the Governor to create a sentiment in favor of the appointment of a veterinarian on the State Board of Health.

The society then adjourned until 2 P. M.

## SECOND DAY—EVENING SESSION.

The society was called to order by Dr. Laws at 2 P. M.

Moved and seconded that the central portion amended as follows: That the Secretary be instructed to ascertain the cost of a gold button of that kind, and report at the next meeting. The original motion was then carried.

The names of Christmas Evans and Richard Kuoni were proposed for membership, and were referred to the Board of Censors.

The Censors reported favorably on the applications. It was moved and seconded that the names be accepted by the society for membership. Carried.

An interesting paper was then read by Dr. David Roberts, subject "Ergotism in Cattle," giving the symptoms and lesions in an outbreak appearing in his practice. It was followed by a spirited discussion of the disease. On motion the essayist was excused.

Moved by Dr. Leech, and seconded by Dr. Arpke, that the members on the programme, and not reading papers, be requested by the Secretary to read their papers at the next meeting. Carried.

On motion a vote of thanks was tendered to the essayist.

The society then adjourned until the second Wednesday in August, 1895, at Chippewa Falls.

W. G. CLARK, *Secretary.*

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VETERINARY MEDICAL ASSOCIATION OF NEW YORK COUNTY.

The regular meeting of the Veterinary Medical Association of New York County, was held at the New York College on Tuesday, May 7, 1895, at 8:30 o'clock, with the President, Dr. Huidekoper, in the chair.

On roll-call the following members responded to their names, viz.: Drs. Bretherton, Caulfield, Dickson, Delaney, Ferster, S. S. Field, H. S. Field; Giffen, Gill, Glover, Huide-

koper, Hanson, Lellman, Machan, Neher, Ryder, Richards, Sherwood, Sielman, Turner, Wolters and Wellner.

The minutes of the last meeting were read and adopted.

The chairman of the Board of Censors reported favorably the name of Dr. M. O. M. Knott, a graduate of the New York College of Veterinary Surgeons, vouched for by Drs. Giffen and Delaney.

The resignation of Dr. Liautard, which was laid over at the last regular meeting, was then taken up, and it was moved by Dr. Field that the same be accepted, seconded by Dr. Giffen, and carried.

Papers being next in order, Dr. Ferster read a very interesting paper on "Horse-shoeing," giving many practical points upon the art.

#### REPORT OF COMMITTEES.

Judiciary Committee.—Dr. Giffen reported as follows :

The Jury bill had passed both houses and had been signed by the Governor.

The bill granting an opportunity for non-graduates to register had been killed in the Senate.

The Regents bill had passed the Assembly, and would be up for third reading in the Senate during the present week.

Moved and seconded that the report be accepted. Carried.

Moved and seconded that the expenses incurred by Drs. O'Shea and Huidekoper for their good work at Albany be allowed them. Carried.

Committee on Certificates.—Reported progress.

Committee on Revision of Constitution and By-Laws.—Dr. Hanson, acting chairman, made the report for the committee. It was then moved and seconded, that each article be taken up separately and acted upon. Carried.

#### CONSTITUTION.

Amendment :

Art. IV. The annual election shall take place in the evening of the first Tuesday of December. Adopted.

## BY-LAWS.

Art. VI. A Board of Censors shall be elected by the members at each annual meeting. Not adopted.

## Art. VII.

1. Charter Members.—All those practitioners of veterinary medicine who were present at the first meeting, to assist in the organization of the above association, etc. Adopted.

2. Future Members.—Applicants for membership shall submit their names upon one of the association's application blanks, duly vouched for by two members of the association. The initiation fee shall accompany such application, which is returnable should he not be elected to membership. Adopted.

3. A two-third vote will be necessary to constitute an election to membership. Adopted.

Art. VIII. A member elect shall pay to the treasurer his annual dues, which shall be five dollars (\$5.00). Adopted.

Art. XIII. The association shall meet upon the first Tuesday of each month, except during July, August and September; election, falling on a Tuesday, the meeting will be held the following Thursday. Adopted.

Art. XIV. The Judiciary Committee shall consist of five members elected at the annual meeting. Not adopted.

## CODE OF ETHICS.

Art. II. No member shall endeavor to build up a practice by undercharging his brother member. Adopted.

Committee on Charges.—Reported progress.

## ELECTION OF MEMBERS.

Moved and seconded that the by-laws be suspended. Carried.

Moved and seconded that the Secretary cast a ballot for Dr. Knott. Carried.

Dr. Knott was then declared a member of the association.

## NEW BUSINESS.

Moved and seconded that the constitution and by-laws be printed as adopted. Carried.

Moved and seconded that a committee of five be appointed as a reception committee for the State meeting to be held in this city in September next, to report at the next meeting. Carried.

Meeting adjourned.

J. E. RYDER, D. V. S., *Secretary.*

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#### NEW HAMPSHIRE VETERINARY MEDICAL ASSOCIATION.

On May 7th, veterinarians of New Hampshire met in the Eagle Hotel, Concord, and organized a State Veterinary Association.

The constitution and by-laws were signed, having been framed and accepted at a previous meeting in April. Officers for the ensuing year were elected as follows:

President, W. I. Russell, Nashua ; Vice-President, J. Hart, Concord ; Secretary, L. Pope, Jr., Portsmouth ; Treasurer, A. Fabbott, Manchester ; Executive Committee, Drs. L. E. Tuttle, Franklin Falls ; A. L. Dodge, Manchester ; R. J. Macguire, Concord.

L. POPE, JR., *Secretary.*

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#### KEYSTONE VETERINARY MEDICAL ASSOCIATION.

The monthly meeting of the K. V. M. A. was held at the office of Dr. W. Horace Hoskins, No. 3452 Ludlow Street, Philadelphia, Tuesday evening, May 21st, having been postponed from May 14th.

The meeting was called to order by President Lintz. Then followed roll call, reading and adoption of the minutes of the previous meeting and committee reports, during which it was learned the bill to establish a State Board of Veterinary Examiners needs but the Governor's signature to become a law. And on motion President Lintz appointed Drs. Hart and Rhoads a committee of two to confer with the State Association to encourage the appointment of men on this board who were willing to make some personal sacrifices in the interest of the

profession, and not men whose sole aim and object is self aggrandisement and personal advancement, and their only claim or hopes of obtaining it is political influence.

The meeting adjourned to meet at Lansdowne June 11th, where they will be entertained by Dr. Rhoads.

W. L. RHOADS., *Secretary.*

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## REPORTS OF CASES.

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### "HEART DISEASE IN THE HORSE."

*Heart Failure Brought on by Overwork In a Horse Suffering from Chronic Endocarditis*

By J. A. COUTURE, P. S., Quebec, Canada.

On the 26th of July, 1894, about 8 P. M., arrived at my hospital a brown mare, 1150 pounds, 5 feet 3 inches, the property of James Ryan Carter, of this city, and used since many years on a cab weighing about 1000 pounds. I must say that this city is very hilly, and, notwithstanding this disadvantage, everybody who owns a horse likes to drive fast. Carters with their heavy traps, weighing sometimes, when loaded with four or five people, 1600 or 1700 pounds, are renowned for their fast driving.

This mare is high spirited generally and very wicked, being nympho-maniac. When approached she tries to bite and strikes both with fore and hind legs. Her pathological antecedents are insignificant, having had, since five or six years, only two slight attacks of indigestion.

The 24th of July she shows no signs of sickness; the 25th she is less spirited, has an occasional cough and her respiration is easily accelerated, the appetite has diminished.

The 26th she refuses her morning ration of oats, but takes her hay. She is dull all day, but she works all the same; frequent cough. At night she refuses all food and is brought up to the hospital.

*Symptoms.*—Temperature 103, respiration 45, pulse small,

filiform, irregular, three or four pulsations in rapid succession, followed by an absence of pulsations lasting three or four seconds; at times it is almost insensible, extremities cold, great weakness. She is handled, auscultated, punched, etc., and kept quiet all the time. When in health she would have reacted with much violence.

*Auscultation.*—Respiratory murmur is present in every part of both lungs. Beatings of the heart are heard equally well on both sides of the chest, there is a *murmur* (bruit de souffle) with first shock (septolic murmur), which can be heard at the base of the heart and on both sides of the chest.

*Diagnosis.*—Heart failure, brought on by overwork when the mare was suffering from chronic endocarditis (insufficiency of mitral valve) and hypertrophy of the heart.

*Treatment.*—Perfect quietness; alcohol two ounces; strong infusion of coffee, one pint to be given at once, the coffee to be repeated every two hours.

The following was also given: Powdered Digitalis, fifteen grains; potassium sodide, two drachms. Mix, and to be given one hour after the alcohol.

July 27th, at 10 A. M.—Temperature and pulse normal, respiration 15. Extremities warm, appetite good; her natural temper has returned and she is now able to defend herself with all her might.

July 28th.—She returns to work.

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#### BIBLIOGRAPHY.

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*Exercises de Chirurgie Hippugue à Alfort.* (Exercises of Equine Surgery at Alford.) By Prof. P. J. Cadiot. (Asselin & Houznan.)

If the veterinary student is made acquainted while at school with all the surgical operations which he may be called upon to perform when he is once in practice for himself, there are a few which he will meet oftener than others and which are, so to

speak, regular classical operations. Such are those that Prof. P. J. Cadiot has gathered in the little neat volume issued by Asselin & Houznan. It is an excellent work which is extensively illustrated, and which will give to the reader a most interesting and instructive pastime, for though it may be Alforian, it is universal in its usefulness.

*Neurotomie Mediane.* (Median Neurotomy.) By Mr. C. Pellerin. Asselin & Houznan, Paris.

A little pamphlet of some 60 pages in which the section of the median nerve is recommended in the treatment of chronic affection of the tendons of the fore leg and in periostosis of the cannon with the presentation of 20 observations where the treatment has applied with a result of one failure, six improvements and fourteen recoveries.

PEROXIDE OF HYDROGEN.—*Free of Charges.* The therapeutical applications of Peroxide of Hydrogen (medicinal), Glycozone and Hydrozone, by Charles Marchand, Chemist. Ninth Edition.

This book of 200 pages, which contains all information on the subject, with reprints of elaborate articles by leading contributors to medical literature, will be mailed to doctors mentioning this publication.

Send full address to Charles Marchand, 28 Prince Street, New York.

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## EXTRACTS FROM FOREIGN JOURNALS.

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### PROLAPSUS RECTI IN A SOW.

By M. J. GUILTARD.

A sow 15 months old, after a night of laboring pains, ending in the presence of a litter of 13 little pigs, presented the next morning a large prolapsus of the rectum, which protruded as a mop of dark red brownish color, and which was increasing at every effort of the animal. By careful manipulation

it was with difficulty replaced, and constant irrigations of cold water applied upon and inside of the rectum. By degrees the efforts of the animal subsided and the retention remained perfect. But it required five hours of that continued treatment to obtain the result.—*Progress. Veter.*

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#### EVERSION OF THE VAGINA AND OF THE BLADDER.

By M. J. GUILTARD.

A three-year-old cow has a prolapsus of the vagina about the size of a man's head. If attempts are made to reduce, the animal resists, struggles and makes violent efforts, which have a tendency to increase the difficulty. The bladder is largely intended and cannot be emptied. The animal is then thrown down, and with her four legs secured together, she is put on her back. In this position the bladder returns to its normal place, the urinary matter is free, the urine escapes, and by degrees the tumor diminishes, and the reduction completed by moderate pressure.—*Ibid.*

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#### OBSTRUCTION OF THE CESOPHAGUS.

By M. J. GUILTARD.

One of those masses, as large as the fist, spheroid in form but somewhat flat, was found at the post mortem of a steer located in the œsophagus in its thoracic portion. The animal, which had been treated by an empiric, had presented all the symptoms offered in cases of œsophageal obstruction, with symptoms of central pleuro-pneumonia, with dullness on percussion, crepitant moist râles &c. On exploration with the probang, the presence of the foreign body has been detected, but the instrument afterwards slipped into an empty space as in the pleural cavity. This was due to a rupture of the œsophagus made by the empiric, who had tried to displace the foreign body with a long flexible stick.—*Ibid.*

## FOETAL DYSTOKIA.

BY M. R. MERIT.

The author was called to a cow, in labor for several hours. Exploration revealed a dead foetus, in the posterior presentation, lumbo-pubic position, of very large size.

To his great surprise, the version of the foetus is very easy, and the lumbo-pubic position becomes lumbo-sacral. The two hind legs are secured and traction made by two strong and intelligent assistants, which brings the foetus' hind quarters into the pelvis; but these cannot be drawn any further. By manual exploration, the hand passes freely round the croup of the foetus, but its abdomen presses against the pubis of the mother. Supposing a case of abdominal dropsy, the walls of the abdomen are freely incised to allow the fluid to escape. None comes out. The hand reintroduced to extract the intestines brings instead portions of a tumour, glandular in aspect, very large, which removes by pieces; weighs when these are gathered together about 16 pounds.

The foetus then is removed, which is found with a fracture of the vertebral column at the last distal vertebra, with another large bloody tumour as the first, though smaller, and the left kidney totally absent.—*Ibid.*

## DYSTOKIA DUE TO DROPSY OF THE FOETAL KIDNEYS.

BY MR. HERMENIER.

A cow in labor makes violent efforts to expell her foetus. The anterior legs, as well as the head, are out protruding through the vulva. The calf had died a few minutes after their first apparition. Manual examination reveals the calf in normal position, but with an enormous abdomen, supposed to be dropsical. Forced extraction fails and hysterotomy must be performed. The left fore leg is removed, and through an opening made to the chest, the heart and the lungs are removed. The diaphragm is torn and presents numerous calcareous con-

cretions in its structure. From the abdomen is extracted an enormous liquid mass, which readily bursts open. It was one kidney—the other was removed in the same way. Both together were about four times the size of a man's head. The tissue of the organs was all destroyed and what little remained of it shows the malpighian bodies of the size of a marble. Both kidneys contained about fifteen quarts of liquid.—*Ibid.*

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#### A CASE OF DIAPHRAGMATIC HERNIA.

BY F. T. STANLEY, M.R.C.V.S.

On the evening of Tuesday, the 5th ult., a mare belonging to the Brighton Railway Company showed signs of abdominal pain whilst at work. She was brought home at once and was apparently relieved of all pain by 10 P. M., after the usual treatment by antispasmodics and stimulants.

I was sent for next morning as the mare "was not so well." I found her standing and violently shivering. The pulse was hard and quick, the extremities cold, and attempts to move the mare gave indications that she was sore all over. My diagnosis was—internal rupture, but I applied mustard and vinegar to the limbs and body, had her clothed and bandaged and gave powerful stimulants. I failed, however, to get any reaction, and informed the manager that the case was hopeless. On visiting her again in the afternoon she was moribund, but did not die till the morning of the 7th.

A post-mortem examination disclosed a rupture about two inches long in the lower part of the diaphragm, through which about two feet of small intestine had passed into the thorax. On opening the chest the strangulated portion of intestines was found discolored and detached. Possibly the separation occurred on removing the contents of the abdomen, but even if it did not occur during life the condition is a novel one.

I think it is uncommon not to have had any sign of abdominal pain during the whole of the 6th. As a rule, death from strangulated intestine is preceded by six or eight hours of

death-like coldness and freedom from pain, but my experience does not include such a long period as twenty-four hours.—*Vet. Rec.*

#### A MALLEIN FATALITY.

One day last week a friend of mine injected with mallein a black horse, to decide the question of any possible glanders infection. The horse died suddenly next morning and a post-mortem examination showed no signs of glanders. Is this a coincidence or is it cause and effect? M.R.C.V.S.

M.R.C.V.S.

[We publish this case because we believe it can only be a coincidence, but such an event is one which might be very disagreeable to a practitioner. We know no similar occurrence, and without many more details can only say that the case is unique.—ED.]—*Ibid.*

## SUNDRIES AND ITEMS.

NON-IMMUNIZED SERUM.—According to Dr. Bertin, of Nantes, the serum of non-immunized horses has the same value in the treatment of diphtheria as that of the immunized animal. Six cases of the disease treated with it have given five recoveries and one death.

DRUMMING TRADE.—To think that after the progress made in the last thirty years by Veterinary Medicine in the United States, such as the following should be yet met with, as a circular sent to owners of horses:

Dear Sir:—In consideration of my extensive establishment, both in the city and country, with all the modern improvements, which surpasses all of its kind in this country, I take great pleasure, as a **QUALIFIED** Veterinarian, in soliciting your patronage.

I give professional care, board and medicine at the hospital for one dollar per day, or twenty-five dollars per month. Veterinary dentistry a specialty.

Services rendered day and night. Hospital never closed.

Professional calls made at owner's stables, anywhere in the city, at one dollar per visit.

Ambulance calls answered night and day.

Special contracts made with firms to care for stock by the year, with any number of horses.

Pet dogs cared for and boarded at the hospital. Terms moderate.

Horses boarded winter and summer at my \_\_\_\_\_ Farm, with professional care and medicine given, at ten dollars per month.

Invalids hauled to steamboats in ambulance free of charge.

For further information, I would be pleased to have you call at the \_\_\_\_\_ Hospital, Nos. \_\_\_\_\_ Avenue.

See advertisement in *Sunday American*.

PREPARING THE ANTITOXIN.—On October 12th, the Pasteur Institute possessed for immunizing purposes a stud of twenty horses. This stud has now been increased to one hundred and thirty-six horses, a total that will probably be ultimately increased to the maximum of 150. Fifteen of these animals are at the State Veterinary School of Alfort, where they are kept under close observation (with regard to pulse, temperature, etc.), by Professor Nocard and his pupils. Forty-two horses are located in the old abattoirs of Grenelle placed at M. Roux's disposal by the Municipal Council of Paris. Of these, twenty are kept by the municipality at a cost of 20,000 francs (\$4,000) a year for the benefit of the Paris hospitals and poor. At Villeneuve-l'Etang—a property ceded by the State to M. Pasteur in 1886—there are seventy-nine horses cared for by a capable veterinary surgeon and his staff. While the regulation six litres of blood (yielding about half that quantity of serum) are being drawn from the jugular vein, the animal's attention is easily distracted by a

handful of carrots, which he munches contentedly. On the day following the phlebotomy immunization is recommenced and continued for five days. A rest of fifteen days follows, and then another bleeding may be practiced. That the animals flourish under this *regime* of good feeding and periodical bleedings is proved by the presence in good health at Alfort of a sturdy Brittany pony which has hitherto supplied no less than four hundred and twenty litres of blood.

HORSE MEAT AND SAUSAGES.—In an article entitled *Chronique de l'hygiène*, which appeared in the *Union Medicale* for February 16th, M. Jules Rochard calls attention to a report communicated by M. Nocard to the Paris sanitary authorities on the question of horse meat in sausages. M. Nocard had been empowered by the prefect of police to examine into a complaint put forward by a syndicate of the pork butchers of Paris, in which it was suggested that the vendors of sausages made from horse meat should be obliged to attach a special label to the sausages indicating their nature. At that time, says the writer, there were no means by which horse meat could be distinguished from that of other animals, and M. Nocard, thinking that it was useless to lay down any measure that would receive no practical support, simply advised the prefect of police to redouble his care in the supervision of the abattoirs and of the inclosures where horses were slaughtered. Now, however, a simple and practical method has been discovered by M. Edelmann and M. Brautigan by which this meat may be distinguished from that of other animals, even when it is mixed in very small quantities with the other meat.

This question, says M. Rochard, is an important one, for the consumption of horse meat is gradually increasing. In 1892 16,483 horses, 206 donkeys, and 43 mules were slaughtered. All this meat is not sold in the 120 butcher shops which actually exist in Paris for the sale of horse meat alone, but the choice parts are sold, and the rest is cut up into sausage meat. This new industry is not attended with any danger in Paris, because the abattoirs, the shops, and the factories are under the constant

supervision of competent veterinary surgeons ; but in the suburbs and in the provinces such supervision exists in name only.

On the other hand, says M. Rochard, if sausages made from horse meat may be eaten in Paris without any danger arising from their consumption, the manufacturers who sell them without indicating their true nature deceive the public and carry on a dishonest competition with the pork butchers. For this reason, says the writer, it is fortunate that such a practical and sure method has been discovered whereby this deception may be revealed.

The method consists in treating a bouillon which is obtained from the suspected product with idolized water. If it contains horse meat, no matter how small the quantity, a peculiar violaceous reddish-brown color will appear. The experiments made by M. Edelmann and M. Brautigan have been tested and verified in M. Nocard's laboratory and under his personal supervision. The procedure is easy and does not call for a complicated outfit, the description of which may be found in M. Nocard's report to the board of health which appeared in the *Compte-rendu des seances du Conseil* for February, 1895. This report ends with the statement that the board of health voted, without discussion, that the manufacturers of sausages made from horse meat should attach a special label to the sausages indicating their true nature. (*Medical Record*).

**FOOT AND MOUTH DISEASE ATTACKING HUMAN BEINGS.**—A cablegram announces that physicians throughout Europe are somewhat apprehensive of the spread of what is described as the human form of the foot and mouth disease, which has been, for a considerable time, prevalent in Berlin. Specialists who have investigated declare that the bacteria are identical with those of cattle suffering from the complaint. They report the pestilence as dangerous, and say it is causing frequent deaths among human victims. Professor Virchow and a committee of the Berlin Medical Society are making an investigation of the milk, which is said to be the usual vehicle of the contagion. (*Medical Record*).